

ABSTRACT

A polyurea-polymer formulation suitable for preparing a molded polyurea polymer includes a polyisocyanate, an isocyanate-reactive material, and a fatty-acid ester. The fatty-acid ester is present in an amount effective for providing a molded polyurea polymer prepared from the formulation with blister resistance such that when the molded polyurea polymer is exposed to moisture and a temperature of at least about 350°F (177°C), the molded polyurea polymer is substantially free of blisters. A fatty-acid ester suitable for use with these formulations can be natural or synthetic, and one example includes jojoba oil. A polyurea-polymer formulation can also include other components known to be useful with polyurea polymers such as fillers, catalysts, surfactants, and polyepoxides. A molded polyurea polymer can be prepared from a polyurea-polymer formulation. One method suitable for preparing a molded polyurea polymer includes reaction injection molding.